

Too Late for the War:

The U.S. Industrial Base and Tank Production 1950-1953

by Major Mark A. Olinger

During the rainy pre-dawn hours of Sunday, 25 June 1950, beginning with a massive artillery barrage, the North Koreans launched an unprovoked invasion of South Korea. At the time of the invasion, the closest major United States ground forces to the Korean Peninsula were four divisions on occupation duty in Japan: the 7th Infantry, 24th Infantry, 25th Infantry, and 1st Cavalry. Assigned to these divisions were the 71st, 77th, 78th, and 79th Tank Battalions, in which only the Company A's were active and equipped with M24 Chaffee light tanks, giving each battalion an end strength of 17 tanks. These four divisions also each had an organic reconnaissance company, with an additional 17 tanks.

During the initial occupation of Japan, planners determined that medium tanks would damage roads and cause lightweight bridges to collapse. To avoid any further damage to the infrastructure, the tank battalions and reconnaissance companies began occupation duties with M24 Chaffee light tanks instead of retaining their heavier M4 Sherman and M26 Pershing medium tanks. Stationed on Okinawa was the 29th Infantry Regiment, with the 5th Regimental Combat Team (RCT) in Hawaii. The only other ground force available in the Pacific area was the 1st Marine Division in California. These units were all at approximately 70 percent of their authorized personnel strength. They did not have their full authorizations of recoilless rifles, mortars, machine guns, and antitank mines, and fielding of the new and improved 3.5-inch rocket launcher had not been completed.

One aspect of the subsequent fighting in Korea that received little attention at the time was the use of armor by the United States and its Allies. To this day, most soldiers view the Korean War as one fought by infantrymen in hilly, mountainous terrain against swarming, innumerable foes. Even less well known was the status of new tank

designs and the condition of the industrial base required to build tanks. In the weeks after 25 June 1950, staff officers and civilian assistants worked long hours and weekends to get soldiers and critical supplies moving to meet the theater commander's requirements. Between 7-10 July 1950, Supply Division, G-4 Army Staff, completed 24 actions, four of which involved either tank status or tank production. Among them:

- Submitted a report, at the request of the G-3, showing equipment readiness and on-hand status of certain infantry, airborne, and armored units in the United States.
- Informed General Ridgeway, Deputy Chief of Staff that, even with the diversion of equipment from the Mutual Defense Assistance Program, approval of General MacArthur's request for four divisions at full strength probably would exhaust certain supplies in the Special Reserves. Further informed the Deputy Chief of Staff that immediate emphasis would have to be placed on expediting overhaul programs, rebuild programs, renovation of ammunition, and essential new major end-item procurement. Any delay in these efforts would put additional serious drains on reserves and depot stocks in the United States.
- Informed the Assistant Chief of Staff, G-4 that, for planning purposes, it would take 15 days to move tanks from depots to western ports of embarkation. Military Sea Transportation Service could ship all types of tanks from San Francisco to Yokohama in 15 days, and to Pusan in 16 days.
- Prepared a study on the status of tanks in the 66th, 70th, 72nd, and 73rd Tank Battalions.¹

By August 1950, the United States had power-projected the following battalion-size, heavy forces into the Ko-

rean Peninsula: 6th Tank, 70th Tank, 72nd Tank, 73rd Tank, and the 89th Tank. The 6th Tank Battalion was equipped with the M46 Patton; the other battalions — to include the 64th Tank Battalion that arrived early in November with the 3rd Infantry Division — were about equally divided between M4A3 Shermans and M26 Pershings. Regiments that deployed to Korea with their organic tank companies included: The 9th, 23rd, and 38th Infantry Regiments, assigned to the 2nd Infantry Division, and the 5th Regimental Combat Team. An infantry regiment tank company was authorized 22 medium tanks. This was a significant amount of combat power projected in a short time, considering it required a minimum of 31 days to ship tanks to Pusan from the United States.

With this tank support, United States forces were able to stop the North Korean offensive and hold along the Nakdong River line. They were outnumbered for several weeks, and it was not until late August or early September that the tank balance tipped in favor of the United States and its United Nations Allies. By then, more than 500 tanks were in the Pusan perimeter, outnumbering North Korean tanks by more than five to one. On 16 September 1950, the 1st Marine Division and 7th Infantry Division made an amphibious assault landing at Inchon and, supported by their organic tank battalions, pushed inland rapidly, quickly retaking Seoul, the South Korean capital. Concurrently, United States forces in the Pusan perimeter launched a coordinated attack to the north and west to link up with the amphibious forces. Led by the 70th Tank Battalion, 1st Cavalry Division, the link-up occurred in the vicinity of Osan on 29 September.

Neither light nor medium tanks were then in production in the United States, and tooling for World War II models had long since been reconverted to civilian production or disassembled. The Army was in the progress of converting



M4 Sherman "Easy Eight"



M24 Chaffee Light Tank



M26 Pershing Medium Tank



M46 Patton Medium Tank

800 M26 Pershing tanks² to M46 Pattons. (An M46 Patton was essentially an M26 Pershing with wider tracks and a more powerful engine.) As the tactical situation became clearer, and it was determined that the demand for tanks was greater than could be supplied, if any were to be maintained in the strategic reserve or transferred to military assistance programs, a decision had to be reached on which tank models should be put into production. Of the new series of medium tanks being developed, none had been fully tested and standardized. World War II models had been thoroughly tested, and industry knew how to build them, but they lacked the firepower, maneuverability, and heavy armor of the new tank designs. In both options, it would be necessary for the U.S. industrial base to retool and set up production facilities. The Chief of Staff and the Secretary of the Army decided to assume the risk of producing the new models without full testing.

The decision for the new light tank was not difficult because the T41 prototype had been tested. Later called the M41 Walker Bulldog, in honor of LTG Walton H. Walker, of the Eighth Army, who was killed in an automobile accident in Korea, the M41 was designed to replace the M24 Chaffee as the standard light tank. The Walker Bulldog weighed over 25 tons fully loaded, was equipped with a 76mm main gun, had a crew of four, a maximum speed of 44 mph, and a range of 100 miles. Over 5,500 of all types were built by the Cadillac Division of General Motors Corporation's Cleveland Tank Plant, by the late 1950s. M41s remain in service with eight countries today.³

Thought to be more difficult was the decision of what medium tank to produce, but it actually turned out more satisfactorily. While the M26 Pershings were being converted to M46 Pattons, a completely new medium tank, the T42, was on the drawing boards. At the time of the North Korean invasion, de-

sign work on the turret had been completed, but drawings for the complete tank were not expected to be finished before November 1950. To save time, the Army staff decided to combine the new turret, with an improved 90mm gun and a new fire control system, to what was basically the M46 Patton hull. The resulting hybrid tank became the M47 Patton. With a 90mm gun, a crew of five, and a loaded weight of 50 tons, the M47 Patton had a top speed of 37 mph and a range of 80 miles. Bypassing the pilot model, and the engineering and service board tests, the Army ordered the M47 Patton into production on 17 July 1950. Ten months later, the new tanks began to come off the assembly lines. It was an additional eleven months before the inevitable design flaws were eliminated. The Army announced acceptance for delivery in April 1952. At \$240,000, the M47 Patton cost three times as much as the World War II M26 Pershing. A total of 8,576 M47s was built by the American Locomotive Company and the Chrysler Corporation's Detroit Tank Plant. In the U.S. Army, the M47 Patton was soon replaced by the M48 Patton and most M47 Pattons were supplied to other countries under the Mutual Aid Program. M47s remain in service with six countries today.⁴

Concurrently, development continued on other models. The most successful was the M48 Patton, the first completely new tank developed since World War II. It went into production in the summer of 1952. Wider tracked than older model tanks, the 49-ton M48 Patton had a one-piece cast hull. It was powered by an improved version of the Continental air-cooled petrol engine, the Allison cross-drive transmission from the M46/M47 tanks, and had power steering. Its one-piece, cast turret mounted an improved 90mm gun. The tank commander had an external 12.7mm machine gun. The tank had five track-return rollers, a crew of four, and a new type of range finder. Maximum speed of the M48 Patton was 29.9 mph, with a range of 134 miles. First prototypes were completed in 1951 and first production tanks left the assembly plants in 1952. By the time production was completed in 1959, 11,703 tanks had been produced by the Chrysler Corporation Plant in Newark, Delaware; Ford Motor Company, Michigan; Fisher Body Division of the General Motors Corporation, Michigan; and Alco Products, Schenectady, New

York. M48s remain in service with 15 countries today.⁵

Completing the family of new tanks was the first heavy tank to go into production for the U.S. Army — the T43. This tank was developed to counter Soviet heavy tank models of the IS and T-10 series in a reinforcement role during offensive operations and in a general support role during the defense. In 1952, a heavy tank was defined as weighing between 56 and 85 tons. The T43 was designated the M103, heavily armored and weighing 62 tons, with a crew of five, and used the M48 Patton chassis with a larger turret mounting a 120mm gun. The maximum speed of the M103 was 29.9 mph, with a range of 75 miles. The M103 was placed into production in late 1952 at the Chrysler Corporation plant in Newark, Delaware. Production was not pushed for this tank; the new medium tanks had priority. About 300 M103 heavy tanks were produced and would remain in service until 1974, when the U.S. Marines phased them out of service.

When the Korean War Armistice was signed on 27 July 1953, none of the new M48 or M41 tanks had reached Korea in time to affect the fighting. The war was fought with the M24 Chaffee, M4 Sherman, M26 Pershing, and M46 Patton tanks. The major reason was that tanks are long lead time major end items. The design and manufacture of the thousands of parts and the assembly of a tank meeting strict Army specifications could not be done overnight. The hybrid M47 Patton took 21 months to come off the assembly line. During the "limited mobilization" of 1950-1953, more than ordinary delays could be expected and they impacted other areas of the industrial base as well. These delays caused by the "limited mobilization" included shortages of machine tools, materials, conflicts between civilian and defense work in the allocation of limited facilities, and lack of skilled engineers, supervisors and inspectors to support the expanding defense industrial base while maintaining the civilian industrial base.

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These tanks arrived too late for Korea...

Notes



M41 Light Tank



M47 Medium Tank

A few M47s were sent to Korea for evaluation late in the war.

¹Of the four tank battalions mentioned in these actions, three eventually served in Korea, they were the 70th Tank Battalion, from July 1950-December 1951; the 72nd Tank Battalion, from August 1950-through the armistice; and the 73rd Tank Battalion, from August 1950-through the armistice. (Appelman and Sawicki)

²The M26 Pershing was a 46-ton medium tank developed at the end of World War II.

³Variants of the M41 are in service with Brazil, Chile, Denmark, Dominican Republic, Guatemala, Taiwan, Thailand, and Uruguay. (Foss)

⁴Variants of the M47 remain in service with Iran, Pakistan, Somalia, South Korea, Turkey and Yugoslavia. (Foss)

⁵Variants remain in service with Greece, Iran, Israel, Jordan, Lebanon, Morocco, Pakistan, Portugal, South Korea, Spain, Taiwan, Thailand, Tunisia, Turkey, and Vietnam. (Foss)

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